Bleached Light Verb in Future Tense in Mandarin

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Abstract:

In Mandarin, “yao” has more than one meaning. It can be used as a regular verb which means “to want”; it can also be used as a future tense indicator which means “will” or “shall”. The author's hypothesis in this paper is that when “yao” is used in sentences to indicate future tense, the predicates of such sentences are serial verb constructions; “yao” functions as bleached light verb to indicate future tense. Empirical approach was used to test the hypothesis. The subjects of the experiment were two Mandarin native speakers. 40 sentences, including 8 distracters, were given to the subjects at random, and PRAAT software was used to record their speaking. Results show that when “yao” is used as a regular verb, it gets higher pitch; in this situation the difference of pitches between “yao” and its previous morpheme or the latter morpheme is much more significant. Therefore the conclusion is that when “yao” is used in sentences to indicate future tense, the predicates of such sentences are serial verb constructions; “yao” functions as bleached light verb to indicate future tense.

Key Words: Bleached light verb, Serial verb construction, Mandarin, Future tense.

1. INTRODUCTION

Compared with many other languages, Mandarin tense is very unique. Previous studies have shown that Mandarin has serial verb constructions and involves an overtly realized light verb under the Larsonian VP-shell approach.

In Mandarin, certain free morphemes can be used to express future tense. "Yao" is an independent character, which has more than one meaning, including "to want", "to demand", etc. When "yao" is used to indicate future tense, it means "will" or "shall". It is a free morpheme. To make it more specifically, it is a functional morpheme.

The aim of the paper is to prove that in Mandarin the free morpheme "yao" functions as a bleached light verb when it is used to indicate future tense. In order to achieve the above goal, an experiment was carried out.

"Yao" has at least the following two meanings: 1. to want; 2. future tense indicator. Therefore the same sentence "Ta mingtian yao ti qiu" can be interpreted in the following two ways:

Interpretation 1: "yao" means "to want"
Ta mingtian yao tiqiu
He tomorrow want play soccer
'He wants to play soccer tomorrow'

Interpretation 2: "yao" means "will"
Ta mingtian yao ti qiu
He tomorrow will play soccer
'He will play soccer tomorrow'

Hypothesis:

As for interpretation 1, the stress of the verb is put on "yao"; as for interpretation 2, the stress of the verb is put on "ti" instead of "yao". That is to say when "yao" is used in sentences to indicate future tense, the predicates of such sentences are serial verb constructions; "yao" functions as bleached light verb to indicate future tense.

The subjects of the experiment were two Mandarin native speakers, one male and one female. 32 sentences were given to them at random, and the author used the PRAAT software to record and analyze the data so as to test the hypothesis.

2. LITERATURE REVIEW

2.1. Serial Verb Construction

A serial verb construction (SVC) is a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort. It is widespread in Creole languages, in the languages of West Africa, Southeast Asia, Amazonia, Oceania, and New Guinea (Aikhenvald 2006: 1). As a grammatical technique covering a wide variety of meanings and functions, serial verb constructions do not constitute a single grammatical category. Instead from the semantic and functional aspect, they are similar to multiclausal and subordinating constructions in non-serializing languages (Aikhenvald 2006).

2.2. Serial Verb Construction in Mandarin

Serial verb constructions are also used in Mandarin. According to Li and Thompson (1981: 594), serial verb constructions in Mandarin can be divided into the following four groups based on the types of meanings they convey.

1. Two or more separate events
2. One verb phrase or clause serving as the subject or direct object of another verb
3. Pivotal constructions
4. Descriptive clauses.

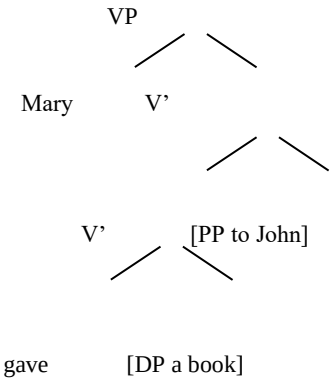
2.3. Light Verbs

2.3.1 Ditransitive Verbs- the Puzzles

Sentence (50) involves two internal arguments, and according to PISH, the syntax tree can be represented as in (51). (Hornstein, Nunes, & Grohmann 2005: 92)

(50) Mary gave a book to John.

(51)



However, the above structure has some serious problems, which can be shown in the following four sentences (Hornstein, Nunes, & Grohmann 2005: 93).

(52) a. I presented/ showed Mary to herself.

b. * I presented/ showed herself to Mary.

(53) a. I gave/sent [every check]i to itsi owner.

b. ?? I gave/sent hisi paycheck to [every worker]i.

(54) a. I sent no presents to any of the children.

b. * I sent any of the packages to none of the children.

(55) a. Which check did you send to whom?

b. * Whom did you send which check to?

In (52) based on Binding Principle A, the reflexive should be c-commanded by "Mary", but if we use the structure in (51), "Mary" does not c-command "herself". So "herself" should be lower in the tree.

In (53) the pronoun "its" must be c-commanded by the quantifier "every" so as to be interpreted as a bound variable, but the structure in (51) cannot satisfy the above need.

In (54) "any" is a negative polarity item (NPI), and it is supposed to be licensed by a negative element. In this sentence, "no" is the negation marker. Thus the NPI "any" should have been c-commanded by the negative quantifier "no" so as to be licensed. However adopting the structure in (51) cannot meet this requirement.

In (55) according to Superiority or the Minimality Condition, wh-expression cannot move to [Spec, CP] crossing another wh-expression that c-commands it. However in (55 a) the movement of "which" crosses "whom" that c-commands it, so it violates Superiority or the Minimality Condition; therefore (55 a) should be ungrammatical. Nevertheless the fact is that (55 a) is grammatical. Thus the structure in (51) cannot account for the grammaticality of sentence (55 a).

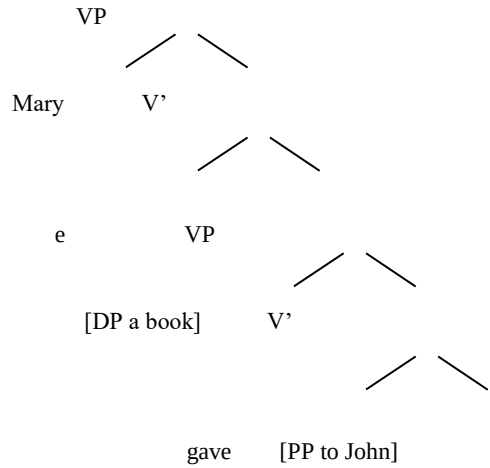
To sum up, (52)-(54) provide evidence to be against structure in (51).

2.3.2 Verbal Shell 1

Larson's (1988) solution for the puzzles reviewed above is to assign the VP-structure in (65) below to ditransitive constructions. To illustrate, (50) would receive the structure in (66)" (Hornstein, Nunes, & Grohmann 2005: 96-97)

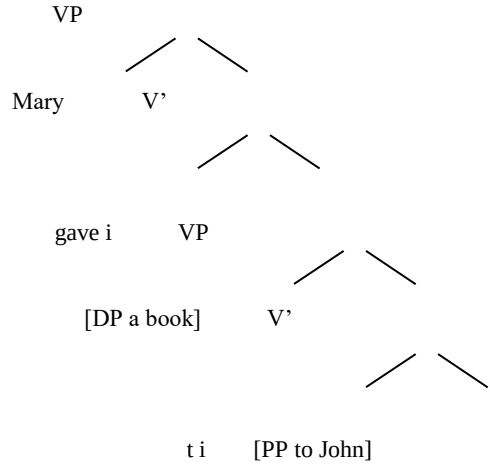
(65) [VP [external argument] [V' e [VP [direct object] [V' verb [indirect object]]]]]

(66)



(66) involves two verbal ‘shells’: a shell headed by *gave* and a shell whose head is empty. The empty head is just a place holder in an X’-skeleton and has no independent thematic requirement.” (Hornstein, Nunes, & Grohmann 2005: 97). The verb “gave” in (66) needs to discharge its external theta-role, so it moves to the position of the empty head and assigns the external theta-role to the specifier of the upper VP-shell, as illustrated in (67) (Hornstein, Nunes, & Grohmann 2005: 97).

(67)



Given the structure in (67), the correct word order is derived after the external argument raises to [Spec, IP], as shown in (68) (Hornstein, Nunes, & Grohmann 2005: 97).

(68) [IP Maryk [I’ I0 [VP tk [V’ gavei [VP [DP a book] [V’ ti [PP to John]]]]]]]

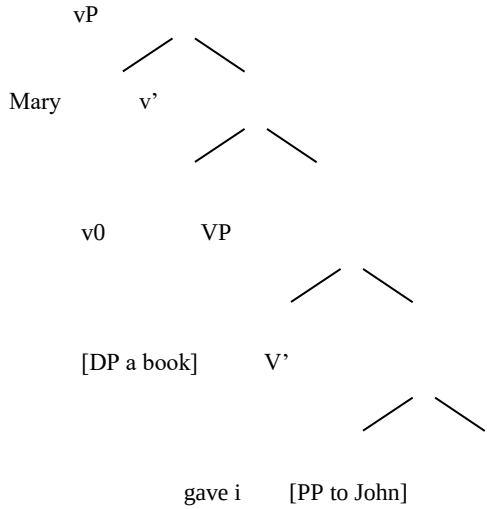
2.3.3 Verbal Shells 2

To answer the puzzle, Chomsky (1995) assumes that the upper verbal shell is projected from a phonetically null "light" verb v, as shown in (69) (see (65) for comparison) rather than from an empty head. A light verb is a verb whose meaning is heavily dependent on the meaning of its complement (Hornstein, Nunes, & Grohmann, 2005: 98).

(69) [vP [external argument] [v' v [VP [direct object] [V' verb [indirect object]]]]]

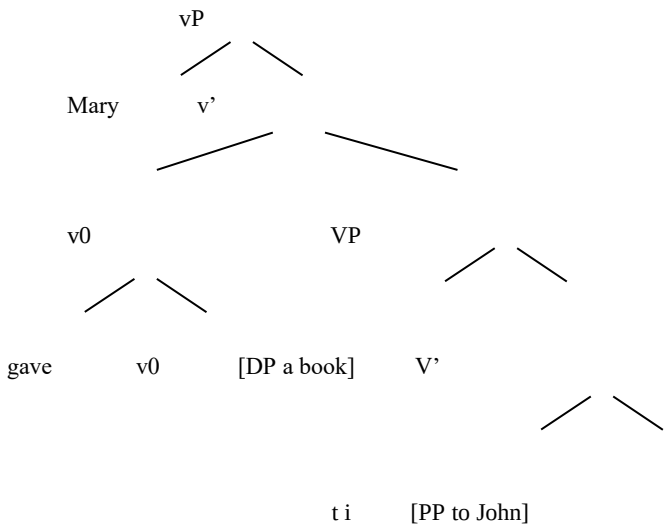
Based on the structure in (69), the VP-structure of the sentence in (50) is illustrated as in (71), where a phonologically null light verb takes the place of the upper verbal shell (Hornstein, Nunes, & Grohmann 2005: 99).

(71)



The surface order of (71) is now obtained if the light verb has a strong V-feature, triggering overt movement of the contentful verb, as shown in (72), followed by movement of the subject to [Spec, IP], as shown in (73) (Hornstein, Nunes, & Grohmann 2005: 99).

(72)



(73) [IP Maryk [I' I0 [vP tk [v' gavei + v0 [VP [DP a book] [V' ti [PP to John]]]]]]]

Some languages, including Mandarin, have serial verb constructions and involve an overtly realized light verb, as shown in the following example.

Mandarin Chinese (Hornstein, Nunes, & Grohmann 2005: 100)

Zhangsan **ba** shu gei wo.

Zhangsan take book give me

'Zhangsan gave the book to me. '

3. FUTURE TENSE IN MANDARIN

In Mandarin, context can be enough to indicate future tense, but it is also possible to use certain free morpheme to express the future tense. The free morpheme can be used either with the context or independently without any adverbial phrase or context.

In Mandarin "yao" is an independent character, which has more than one meaning, including "to want", "to demand", etc. When "yao" is used to indicate future tense, it means "will" or "shall". It is a free morpheme. To make it more specifically, it is a functional morpheme. The following examples show how "yao" is used as free morpheme to indicate future tense.

a. ta (mingnian) yao shang daxue

he (next year) will go university

'He will go to university (next year).'

b. (mingtian) wo yao qu Xiaoli jia wan

(tomorrow) I will go Xiaoli house play

'I will go to Xiaoli's house to play tomorrow'

c. xiawu tamen yao kaihui

afternoon they will have a meeting

'They will have a meeting in the afternoon.'

4. HYPOTHESIS

What the author has observed is that certain free morphemes which function as tense indicators or auxiliaries in Mandarin are bleached light verbs. Previous studies have shown that Mandarin has serial verb constructions and involves an overtly realized light verb under the Larsonian VP-shell approach. In Mandarin the free morpheme "yao" for future tense is an independent verb. The author's hypothesis is that when "yao" is used in sentences to indicate future tense, the predicates of such sentences are serial verb constructions; "yao" functions as bleached light verb to indicate future tense. Empirical approach was employed to test the hypothesis in this paper.

5. METHOD

5.1. Subjects

The subjects of the experiment were two Mandarin native speakers, one male and one female. Both of them were fluent in English.

5.2. Recording Sentences

English interpretation was given first; then the Chinese sentence was provided as shown in the following.

He will play soccer tomorrow.

他明天要踢球。

He wants to play soccer tomorrow.

他明天要踢球。

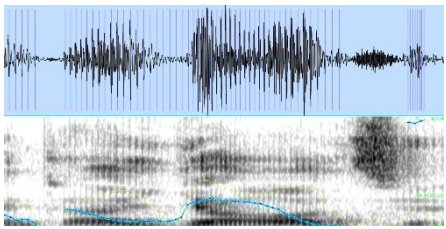
40 sentences, including 8 distracters, were given to the subjects at random, and PRAAT software was used to record their speaking.

There are four tones in Mandarin. In order to include all possibilities and make the study more objective, the characters before and after the target morpheme “yao” were provided with all four tones, and they matched one another as illustrated in the following table.

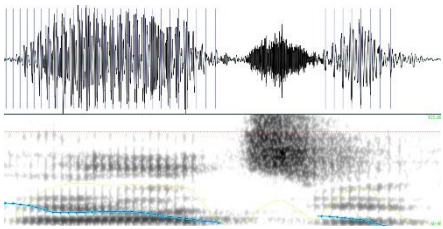
Tone of TBU 1	Target-TBU (T-TBU)	Tone of TBU 3
1	yao	1
1	yao	2
1	yao	3
1	yao	4
2	yao	1
2	yao	2
2	yao	3
2	yao	4
3	yao	1
3	yao	2
3	yao	3
3	yao	4
4	yao	1
4	yao	2
4	yao	3
4	yao	4

5.3. Result Analysis

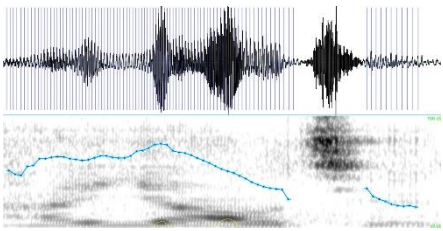
PRAAT software was used to analyze the result. The following four pictures were the pictures of the three morphemes, namely the morpheme before “yao”, the target morpheme “yao” and the morpheme after “yao”. They were the pictures of Male Speech Regular Verb Tone 13, Male Speech Tense Indicator Tone 13, Female Speech Regular Verb Tone 13, and Female Speech Tense Indicator Tone 13 respectively.



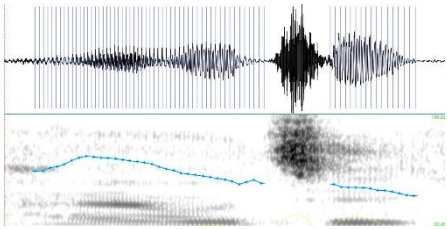
Male Speech Regular Verb Tone 13



Male Speech Tense Indicator Tone 13



Female Speech Regular Verb Tone 13



Female Speech Tense Indicator Tone 13

The maximum pitches of the morpheme before “yao”, “yao”, and the morpheme after “yao” were evaluated. The data were listed in the following tables.

Male Recording Results

	Tense Indicator (TI)	Regular Verb (RV)	(TI)	(RV)	(TI)	(RV)	(TI)	(RV)
Tone	11	11	12	12	13	13	14	14
TBU 1	133.95	130.19	127.34	122.81	134.08	128.80	157.02	119.75
T-TBU	119.11	151.23	123.32	147.71	124.16	159.13	139.37	161.83
TBU 3	117.03	135.91	115.12	92.84	116.19	167.41	129.44	153.02

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	21	21	22	22	23	23	24	24
TBU 1	121.82	119.62	109.40	108.67	131.21	109.12	123.30	108.56
T-TBU	161.05	197.84	132.03	143.23	121.04	163.51	126.97	150.38
TBU 3	279.41	203.69	109.53	93.06	157.96	230.96	115.54	110.32

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	31	31	32	32	33	33	34	34
TBU 1	120.56	114.86	124.16	121.35	174.52	120.00	111.48	98.08
T-TBU	110.76	139.53	126.44	179.03	134.94	165.33	108.28	130.08
TBU 3	127.46	99.51	133.78	130.76	114.87	171.87	138.11	112.84

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	41	41	42	42	43	43	44	44
TBU 1	157.35	133.00	146.73	125.93	131.97	122.22	129.58	115.86
T-TBU	127.10	146.69	136.71	142.72	128.62	137.79	129.51	160.10
TBU 3	130.65	105.74	111.22	101.83	95.43	113.92	126.30	106.43

Female Recording Results

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	11	11	12	12	13	13	14	14
TBU 1	234.24	240.87	238.29	261.81	244.52	251.41	237.34	238.25
T-TBU	216.68	240.85	244.73	238.35	216.51	241.03	226.32	243.97
TBU 3	247.78	198.15	219.13	188.01	182.49	162.86	237.57	199.04

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	21	21	22	22	23	23	24	24
TBU 1	215.24	220.06	225.50	221.66	235.43	213.33	224.45	220.52
T-TBU	224.15	242.05	222.89	223.50	227.26	233.51	216.01	232.21
TBU 3	240.39	195.95	217.00	178.15	181.34	163.28	219.66	200.54

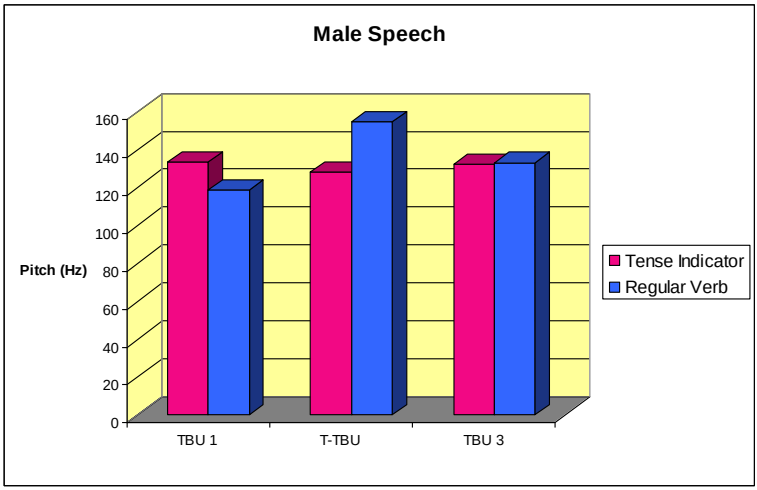
	TI	RV	TI	RV	TI	RV	TI	RV
Tone	31	31	32	32	33	33	34	34
TBU 1	250.16	209.90	227.55	207.60	240.88	201.97	212.63	205.37
T-TBU	187.56	234.98	191.90	222.93	221.33	222.20	199.04	230.17
TBU 3	243.82	214.62	217.69	197.87	183.20	177.69	240.68	207.54

	TI	RV	TI	RV	TI	RV	TI	RV
Tone	41	41	42	42	43	43	44	44
TBU 1	235.99	218.15	228.08	226.11	237.81	231.28	232.95	224.45
T-TBU	220.29	240.89	222.82	234.77	222.39	235.60	218.30	229.99
TBU 3	233.64	196.10	205.28	191.91	198.68	175.62	226.76	205.06

In order to evaluate the above data, the average pitches of TBU 1, Target TBU and TBU 3 were taken.

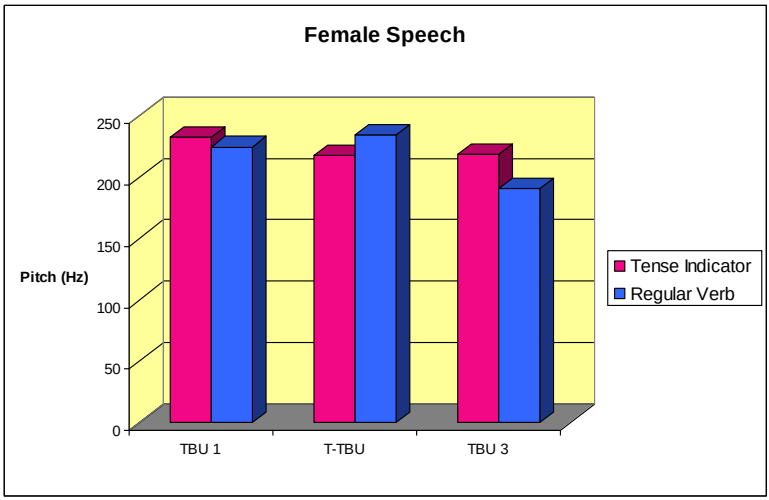
The average pitches of male speech were listed in the following table.

	Tense Indicator	Regular Verb
TBU 1	133.40	118.68
T-TBU	128.09	154.76
TBU 3	132.38	133.13



The average pitches of female speech were listed in the following table.

	Tense Indicator	Regular Verb
TBU 1	232.57	224.55
T-TBU	217.39	234.19
TBU 3	218.44	190.77



The above data and the charts show that when "yao" is used as a regular verb, it gets higher pitch; in this situation the difference of pitches between "yao" and its previous morpheme or the latter morpheme is much more significant.

6. CONCLUSION

In Mandarin, "yao" has more than one meaning. It can be used as a regular verb which means "to want"; it can also be used as a future tense indicator which means "will" or "shall".

The experiment shows that when "yao" is used as the future tense indicator, it gets less stressed, namely gets lower pitch; in this situation, the difference of the pitches between "yao" and its previous morpheme or the latter morpheme is much less obvious. Therefore the conclusion is that when "yao" is used in sentences to indicate future tense, the predicates of such sentences are serial verb constructions; "yao" functions as bleached light verb to indicate future tense.

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APPENDIX

The distracters in the experiment were excluded in the appendix and in the experiment the following sentences were given to the subjects at random.

1

He will play soccer tomorrow. Tone 11

他明天要踢球。

He wants to play soccer tomorrow.

他明天要踢球。

I will study tomorrow. Tone 12

我明天要学习。

I want to study tomorrow.

我明天要学习。

He will solve the problem tomorrow. Tone 13

明天他要解决这个问题。

He wants to solve the problem tomorrow.

明天他要解决这个问题。

He will go to school tomorrow. Tone 14

他明天要去上学。

He wants to go to school tomorrow.

他明天要去上学。

2

Xiaoqin will play soccer tomorrow. Tone 21

明天小芹要踢球.

Xiaoqin wants to play soccer tomorrow.

明天小芹要踢球.

Xiaoqin will study the day after tomorrow. Tone 22

后天小芹要学习。

Xiaoqin wants to study the day after tomorrow.

后天小芹要学习。

Xiaoqin will solve the problem tomorrow. Tone 23

明天小芹要解决这个问题。

Xiaoqin wants to solve the problem tomorrow.

明天小芹要解决这个问题。

Xiaoqin will go to school next year. Tone 24

小芹明年要去上学。

Xiaoqin wants to go to school next year.

小芹明年要去上学。

3

I will play soccer the day after tomorrow. Tone 31

后天我要踢球。

I want to play soccer the day after tomorrow.

后天我要踢球。

I will study tomorrow. Tone 32

明天我要学习。

I want to study tomorrow.

明天我要学习。

I will solve the problem next week. Tone 33

下周我要解决这个问题。

I want to solve the problem next week.

下周我要解决这个问题。

I will go to school next month. Tone 34

下个月我要去上学。

I want to go to school next month.

下个月我要去上学。

4

Xiaosong will play soccer tomorrow. Tone 41

明天小宋要踢球。

Xiaosong wants to play soccer tomorrow.

明天小宋要踢球。

Xiaosong will study tomorrow. Tone 42

明天小宋要学习。

Xiaosong wants to study tomorrow.

明天小宋要学习。

I will solve the problem next month. Tone 43

我下个月要解决这个问题。

I want to solve the problem next month.

我下个月要解决这个问题。

I will go to school next month. Tone 44

我下个月要去上学。

I want to go to school next month.

我下个月要去上学。